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LETTER OFFERING COMMENTS ON DRAFT CONFIRMATORY STUDIES REPORT FOR SITE 2 - LANDFILL 2 ADDENDUM TO FINAL FORT STORY PRELIMINARY ASSESSMENT/ SITE INVESTIGATION REPORT AUGUST 1995 FORT STORY VA
9/11/1995
COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

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COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Peter W. Schmidt
Director

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September 11, 1995

Commander
US Army Transportation Center
ATZF-PWE (Musel)
Building 1407, Room 111
Fort Eustis, Virginia 23604-5332

Dear Mr. Musel:

Thank you for providing the Department of Environmental Quality, Office of Federal Facilities Restoration and Superfund, the opportunity to comment on the "Draft Confirmatory Studies Report for Site 2 - Landfill 2, Addendum to the Final Fort Story Preliminary Assessment/Site Investigation Report" August 1995.

Attached are our staffs' comments on the Landfill 2 Report. If you have questions concerning these comments please contact me at (804) 762-4192.

Sincerely,

Durwood H. Willis
Office of Federal
Facilities Restoration
and Superfund

/ko

Attachments

cc: Erica Dameron, DEQ
Larry McBride, DEQ

Comments on the "Draft Confirmatory Studies Site 2 - Landfill 2, Addendum to the Final Fort Story Preliminary Assessment/Site Investigation Report" August, 1995

1. Page 2-3 Section 2.1.3 Sediment Sampling Procedures-The depth at which the sediment samples were collected, 1 to 1.5 feet, may not be indicative of contamination concentrations in the surface layers of the sediment. A surface sample may provide data that is more comparable to the National Oceanic and Atmospheric Administration (NOAA) guidelines for contaminant effects rates. If sediment monitoring is performed in the future, some consideration should be given to sampling the sediment surface as well as at the depth noted above.

2. Table 4-2 Page 1 of 3- The detection limit for copper in the surface water and groundwater samples appears to be 25 ug/l. The water quality standard for copper in salt water is 2.9 ug/l. It is not possible to state that the surface water concentration of copper is below the salt water criteria. Future analysis should utilize a technique with lower detection limits.

3. Table 4-2-The level of concern in surface waters for several metals is dependent upon the water hardness which was not provided. In the future, monitoring of surface water should include hardness.

4. Table 4-4, Page 3 of 3-It appears that the concentration of mercury in the sediment may exceed the NOAA levels of concern. If this is accurate the text should be modified accordingly.

5. Page 4-3 Section 4.3.3 Sediment Contamination Assessment-The total fuel hydrocarbon-heavy (TFH-H) values in the sediment samples SD3003 and SD3004 appear to be elevated and exceed the trigger levels provided in the Preliminary Assessment/Site Investigation for Fort Story in January, 1992 (Fort Story PA/SI January, 1992) . Potential sources of TFH-H should be identified and impacts discussed.

6. Tables 4-2 and 4-4-Detailed chemical analysis of the sediment and surface and groundwater has detected numerous Tentatively Identified Compounds from the Volatile and Base Neutral/Acid Extractable compound fractions. Several of the tentatively identified compounds (or group of compounds) are present in several or all of the sediment samples. Some of these compounds may be biogenic while others may be due to site activities. Some discussion of the compounds (or group of compounds) seems appropriate in the situations where the detection is noted in every sample of a medium or where the concentrations are the highest.

7. Table 2-8, Page 2-18 of the Fort Story PA/SI January, 1992 indicates a soil trigger for copper of 14 mg/kg. Comparison

of the soil trigger to the January 1995 sediment data indicates two sediment samples meet or exceed this trigger level (SD3003-14 mg/kg, SD3004-16 mg/kg). Soil boring samples, collected in 1990, near the location of these sediment samples also had concentrations of copper above the trigger levels (Fort Story PA/SI January, 1992 page 2-30).

8. The trigger provided in the Fort Story PA/SI January, 1992 for zinc in soil is 57 mg/kg. This trigger was exceeded in three sediment samples; (SD3002-65 mg/kg, SD3003-380 mg/kg, SD3004-90 mg/kg).

9. The trigger provided in the Fort Story PA/SI January, 1992 for DDT of 0.044 mg/kg was exceeded by the concentrations of DDD in six sediments samples. DDE was detected in two sediment samples at concentrations which exceeded the soils trigger level for DDT.

10. EPA Region III has developed draft sediment screening levels for ecological risks. (A copy of the January, 1995 interim draft "Region III BTAG Screening Levels" is attached.) Arsenic exceeds the Region III screening level in one sample; SD3003-9.9 mg/kg.

11. Lead exceeded the Region III screening level at SD3003-69 mg/kg and SD3004-58 mg/kg. These sediment sample locations are in close proximity to the groundwater well which had elevated levels of lead in the groundwater.

12. The concentration of mercury in three sediment samples SD3001-0.17 mg/kg, SD3003-0.28 mg/kg, SD3004-0.28 mg/kg exceed the EPA Region III screening level.

13. The concentration of zinc in sediment sample SD3003 is 380 mg/kg which exceeds the EPA Region III screening concentration of 150 mg/kg.

14. The concentration of DDD in three sediment samples exceed the EPA Region III screening level; SD3004-0.045 mg/kg, SD3005-0.069 mg/kg, SD3005D-0.032 mg/kg.

15. The concentration of total zinc in MW107, MW108, MW109, and MW109D exceed the Virginia Groundwater Standard of 50 ug/l. Dissolved zinc was not detected at concentrations which exceeded the Virginia groundwater standard.

16. The concentrations of Ammonia-N in groundwater samples MW105 (74 ug/l), MW109 (3000 ug/l) exceeded the Virginia groundwater standard for the coastal plain which is 25 ug/l.

17. The above comments related to levels of contaminants in sediment, groundwater and surface water indicate the need to evaluate these contaminants and media on a fixed interval. The fact that the characteristics of contaminants varied between 1990 and 1995 would suggest that continued evaluation is needed.